

BACKGROUND

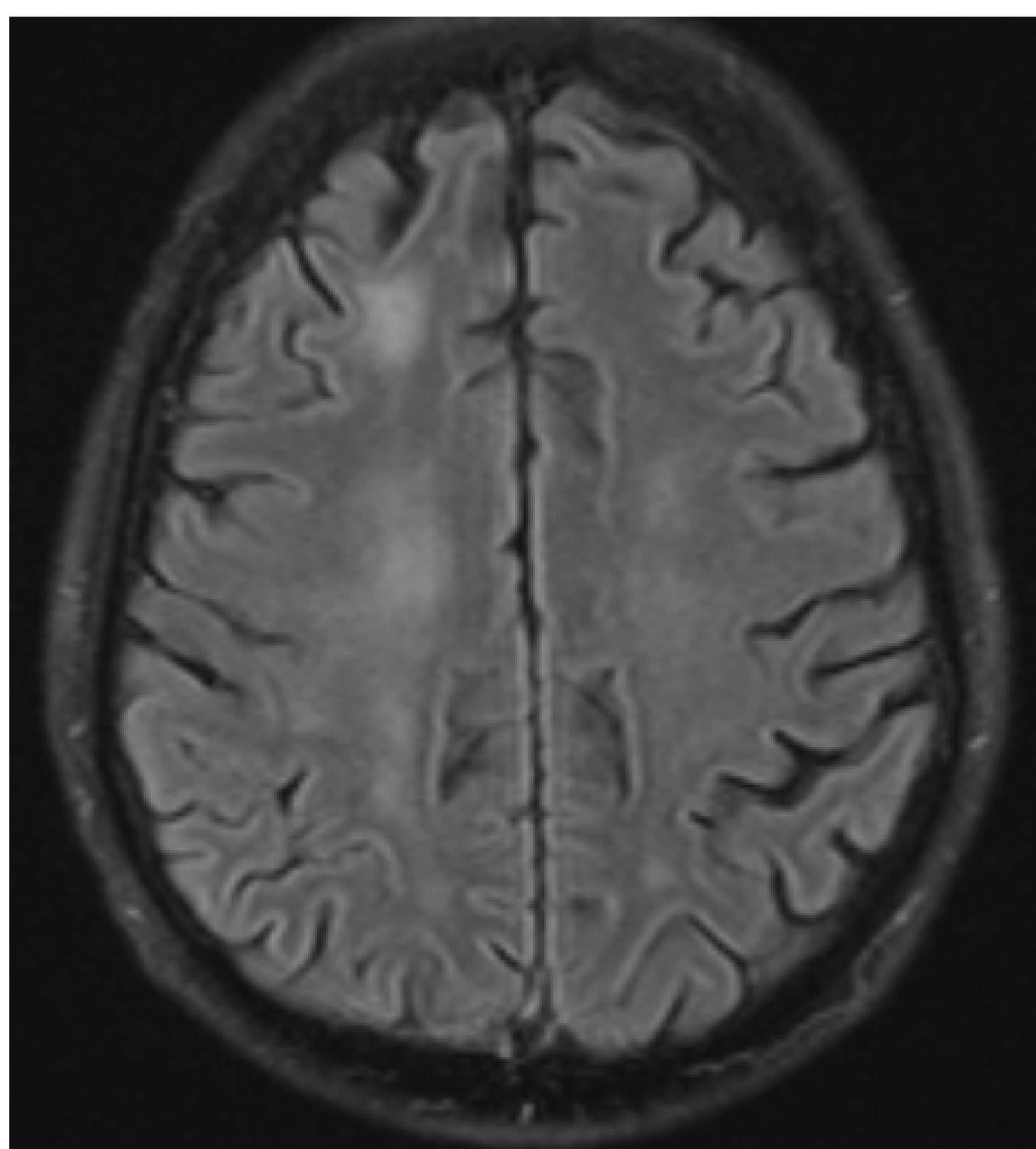
Anti-NMDA receptor encephalitis is an increasingly recognized clinical condition, with its association to neoplasm and HSV encephalitis being commonly cited. However, we present a case of anti-NMDA receptor encephalitis following EBV encephalitis.

OBJECTIVES

To describe a case of anti-NMDA receptor encephalitis, post-EBV encephalitis presenting with cognitive impairment, parkinsonism, multifocal myoclonus, dystonia, seizures, and personality changes.

METHODS

Review of records of a patient with anti-NMDA receptor encephalitis and prior EBV encephalitis at our institution.



T2/FLAIR hyperintensities commonly associated with anti-NMDAr encephalitis (1)

RESULTS

A 63-year-old male presented to the hospital with three weeks of personality change, memory impairment, tremulous movements, possible seizures, fever, and weight loss along with MRI head showing non-enhancing T2 hyperintensities across deep white matter bilaterally. He was diagnosed with EBV encephalitis after CSF showed positive EBV PCR and was treated appropriately with ganciclovir. Despite the treatment, two months later, he was readmitted with fluctuating mental status. On exam he had delirium, asymmetric bradykinesia, cogwheel rigidity, multifocal myoclonus in extremities, left hand dystonia. Repeat MRI revealed confluent T2 hyperintensities in subcortical and deep white matter. Repeat lumbar puncture revealed NMDA receptor antibody positivity on CSF prompting his treatment with intravenous methylprednisolone followed by intravenous immunoglobulin and oral prednisone. This combination of treatment allowed this patient to demonstrate improvement while inpatient and progress to rehabilitation outside of the hospital. In the longer term, the patient continued treatment with IVIG as well as rituximab and appears to be showing mild improvement.

CONCLUSIONS

This patient presented with symptoms of infectious encephalitis and was treated for EBV encephalitis. His improvement after treatment was incomplete and temporary. He was eventually found to have anti-NMDA receptor encephalitis. Cases exist of anti-NMDA receptor encephalitis following HSV encephalitis, but this case serves as reminder that anti-NMDA receptor encephalitis is not limited to those with prior HSV encephalitis or neoplasm.

REFERENCES

1. Dalmau J, Lancaster E, Martinez-Hernandez E, Rosenfeld MR, Balice-Gordon R. Clinical experience and laboratory investigations in patients with anti-NMDAR encephalitis. *Lancet Neurol*. 2011 Jan;10(1):63-74. doi: 10.1016/S1474-4422(10)70253-2. PMID: 21163445